*ClearTrigger/ClearTrigger Lite
Version 13.1 Installation Guide*

Audience

The **ClearTrigger Installation Guide** is intended as an installation reference for those responsible for installing ClearTrigger or ClearTrigger Lite. Oft times these individuals are different than those responsible for day-to-day ClearTrigger Administration. It is expected that this document is not made highly available and that copies might reside primarily with UNIX or Windows System Administrators.

For day-to-day ClearTrigger or ClearTrigger Lite Administration or help with configuring ClearTrigger or ClearQuery or for help writing triggers or policy, refer to the **ClearTrigger Administration Guide**.

Product Demarcation

This document covers both ClearTrigger and ClearTrigger Lite. As of Version 12.0 both products are combined in the same executable. ClearTrigger contains significantly more features the ClearTrigger Lite and they use a similar clearbits file; the license key in that clearbits file determines if the executable provides all of the ClearTrigger functionality or only the ClearTrigger Lite functionality.   Within this document ClearTrigger may sometimes be used to mean both ClearTrigger and ClearTrigger Lite. When a feature applies only to ClearTrigger or ClearTrigger Lite it will be so noted.

Supports both ClearCase by IBM and VersionVault by HCL

ClearTrigger was initially created to support ClearCase 3.2 (as introduced by Atria Software) through the latest versions of ClearCase (introduced by IBM) as well as all versions of VersionVault (as introduced by HCL).

Introduction

ClearTrigger Overview

ClearTrigger is a custom add-on to IBM's ClearCase product and HCL's VersionVault product. It serves to simplify the task of maintaining triggers and policy for your ClearCase or Version Vault installation. It is flexible in that it allows the user to enforce separate sets of triggers across different projects, teams or operating systems. ClearTrigger enables organizations to add triggers for specialized processing requests. It conveniently integrates with your current ClearCase or VersionVault installation and does not require moving VOBs to new machines or reorganizing your network. Upon installation and configuration ClearTrigger, it is ready to use. ClearTrigger is an efficient way to manage current and existing triggers for the enterprise. Though, it does not stop there! ClearTrigger **also provides policy** so you do not have to create it. Functionality bits are provided to ensure that the most used and requested policy by ClearCase or VersionVault administrators around the world are already coded into ClearTrigger. Simply turn the bit on.

ClearTrigger makes use of basic, straightforward instructions to apply triggers. The dilemma of creating triggers using *cleartool mktrtype* is circumvented. Additional features were also added and some restrictions that existed with native ClearCase or VersionVault trigger definitions were either removed or relaxed.

ClearTrigger's simple method of implementation is accomplished through the use of configuration files called *clearbits_file*. The *clearbits_file* does not have to be named such, but for the sake of continuity within the document, all configuration files shall be referred as "*clearbits_file.*" The *clearbits_file* file allows you to define up to two different policy depots. The policy depot contains all of the trigger code to be managed by ClearTrigger. You may setup policy depots for UNIX and Windows if your site requires. There is no limit to the amount of *clearbits_files* that your organization can have. You may create multiple configuration files to divide your policy depot among multiple teams or departments. Thereby creating *ClearTrigger regions*. Suppose you wanted specific VOB groups to have a specialized high security policy versus the entire organization. This, too, can be easily done with ClearTrigger.

Using ClearTrigger is faster and simpler than going to each of your organizations VOBs to redefine triggers to restrict certain users or groups (as done when using the *-nusers* option on the *mktrtype* command). It also eliminates the need to update multiple script files to prohibit individual users belonging to UNIX or NT groups allowed to access the VOBs. VOBs do not have to be moved to new machines or networks reorganized. Simply install and configure ClearTrigger and get started!

ClearTrigger Lite is a custom add-on to the ClearCase or VersionVault product. It provides about 1 half of the Functionality of ClearTrigger including the highly popular functionality bits, region-wide inhibit features as well as simple CPDs which allow a region wide command/user availability matrix.

ClearQuery Overview

ClearQuery is a ClearTrigger add-on providing methods to test the usefulness of policy by providing a query mechanism allowing you track successes and failures (something neither ClearCase nor VersionVault do). You can query by commands, users, functionality bits, command keys or all of the above. The queries return easy to read graphs that allow you to quickly decide if a policy is working for your organization or if someone may need extra help/training.
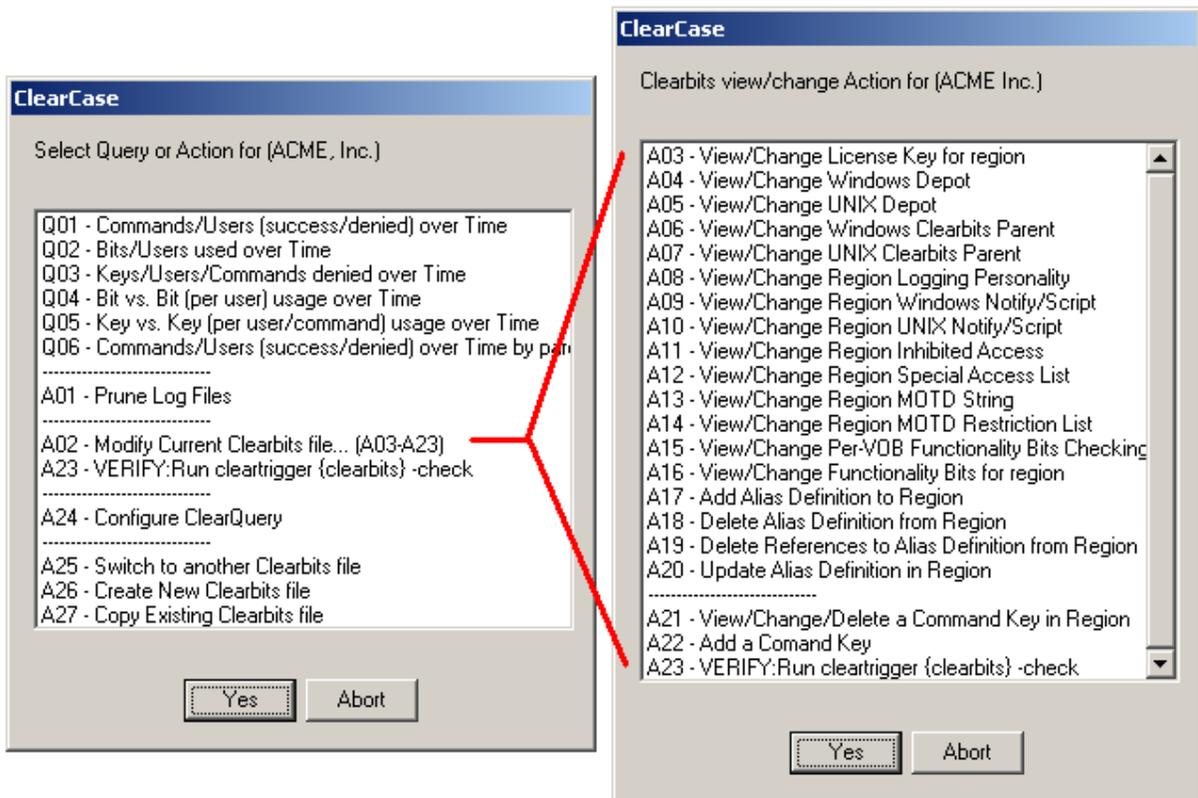
You can view some sample reports in the ClearTrigger Administration Guide.

Customer Support

To obtain additional information on ClearTrigger or other services offered by A Better Solution, Inc., visit our web site at www.abs-consulting.com. To report problems with the ClearTrigger software or documentation, please send e-mail to cleartrigger_team@abs-consulting.com.

Supported Platforms

ClearTrigger integrates with ClearCase installations of 3.2 and higher and all versions of VersionVault. A single installation of ClearTrigger can typically serve an entire organization. The system requirements for ClearTrigger are consistent with those used to run ClearCase or VersionVault. ClearTrigger will operate in a mixed version environment as well as a mixed OS environment. The following operating systems are supported for ClearTrigger.:

❖ **WINDOWS:**
- **Windows 9x**
- **Windows NT**
- **Windows 2000 and higher**

❖ **UNIX:**
- **Solaris**
- **SunOS**
- **HP-UX**
- **RedHat Linux**
- **AIX**
- **CentOS**
- **Ubuntu Linux**
- **SUSE Linux**
- **Solaris X86**

Installing ClearTrigger/ClearTrigger Lite

ClearTrigger may be installed locally or in a central network location accessible by ClearCase or VersionVault clients and servers. This installation procedure can be used for each of the supported platforms. You must download the ClearTrigger executables; ***cleartrigger.exe***, ***cleartrigger_server.exe***, ***clearapply.exe and clearquery.exe***, from the ABS Download Center (http://www.abs-consulting.com) for the operating system on which you wish to run ClearTrigger. Once you have completed the download, proceed as follows:

1. Create a **Download Directory,** we will refer to this as the **{Download_home}** directory. Next, extract the contents of the downloaded *zip* or *tar.cz* file to the {Download_home} directory. Extract the contents of the archive file to this directory.

   - For Window: use the "extract all…" (or similar) from the pulldown menu of the selected zip file

   - For Unix: use one of the commands below:

         tar -xvzf cleartrigger_bins.tar.gz
      or
         gzip -d < cleartrigger_bins.tar.gz | tar xvf –
      or
          gunzip < cleartrigger_bins.tar.gz | tar xvf –

   After extraction, the{Download_home} directory will contain the "bins" directory. In the **{Download_home}/bins** will contain the product binaries for each supported architecture.

   ❖ **Copy the cleartrigger and cleartrigger_server executables** to either:
      o A network accessible area for all ClearCase or VersionVault client machines (i.e. **/net/earth/policy** for UNIX   **\\third_rock\policy** for Windows)
      o A local path that is common to all clients machines (i.e. **/usr/abs/policy** for UNIX   **d:\policy** for Windows)

      Note: ClearTrigger clients are ClearCase or VersionVault client machines that access VOBs. ClearTrigger itself does not have to be installed on the ClearCase/VersionVault client machine. For Unix architectures, be sure to apply appropriate executable bits with the chmod command.

   ❖ **Copy the clearapply executable** to a location that is accessible to the VOB administrator for your organization. This executable does not (and probably should not) need to be widely distributed or available, as only the VOB owner can apply ClearTrigger to a VOB. Placing the clearapply executable in the owner's ***home*** directory is acceptable.

      Note: For Unix architectures, be sure to apply appropriate executable bits with the chmod command.

❖ **Create a clearbits_file** (i.e. clearbits.txt) in a network accessible location available to all ClearCase or VersionVault clients.

For a detailed description of the clearbits_file, read the section entitled "A Clearbits file" in the ClearTrigger Administration Guide. Populate the clearbits_file using our **ClearQuery** executable.

Note: The location of the *clearbits_file* does not have to be on a ClearCase/VersionVault installed client or even a ClearCase/VersionVault supported architecture (or even a ClearTrigger client for that matter); it must just be a readable flat file system accessible from all ClearTrigger clients (machines that access VOBs with ClearTrigger applied). The pathname cannot have embedded spaces.

❖ **Create a *depot directory*** to a network accessible location available to all ClearTrigger clients:

Note: The depot directory does not have to be named "depot" but it usually is for convention. The location of this or any depot directory does not have to be on a ClearCase or VersionVault installed client or supported architecture, or a ClearTrigger client. It must simply be a readable flat file system accessible from all ClearTrigger clients (machines that access VOBs with ClearTrigger applied). The pathname cannot have embedded spaces.

❖ **Create a *daemon directory*** directly under the ***depot directory*** so this directory is location is available to all ClearTrigger clients:

The directory should be **rwx** for everyone and remain empty for now (ClearTrigger process read and write there).

❖ **Use clearapply.exe** to apply ClearTrigger to all VOBs. You can read more applying ClearTrigger to specific VOBs in the **ClearTrigger Administration Guide**.

Installing ClearQuery

To install ClearQuery follow the steps below:

1) Create a directory called "**query_results**" in your **ClearTrigger depot** – make sure it is writable by anyone that you will allow to run queries. ClearQuery will place any web pages it builds in this directory.

2) Place the ClearQuery executable (cleaquery.exe) where it will be used. The location selected should have accessibility to the clearbits file for the region(s) from which ClearQuery will be used.

The installation of ClearQuery is complete.

Client setup

ClearTrigger requires the following components for setup:

UNIX & Windows:

❖ That ClearCase or VersionVault is properly installed on the client machine. Without ClearCase or VersionVault, there is no need for ClearTrigger as ClearTrigger relies on ClearCase or VersionVault to function.

❖ A well-known temp directory must be found or set. ClearTrigger will use the value of either the **TMP** or **TEMP** variable if set. If neither of those variables is set, it tries writing to the default temp directories for the operating system (**/tmp** or **/temp** if running on UNIX or **c:\tmp** or **c:\temp** for Windows). If neither the TMP nor TEMP environmental variable is set and writable AND the default temp directories for the operating system are not writable, ClearTrigger displays the following dialog. Because this is also a requirement of ClearCase and VersionVault, a proper installation would not yield this error.
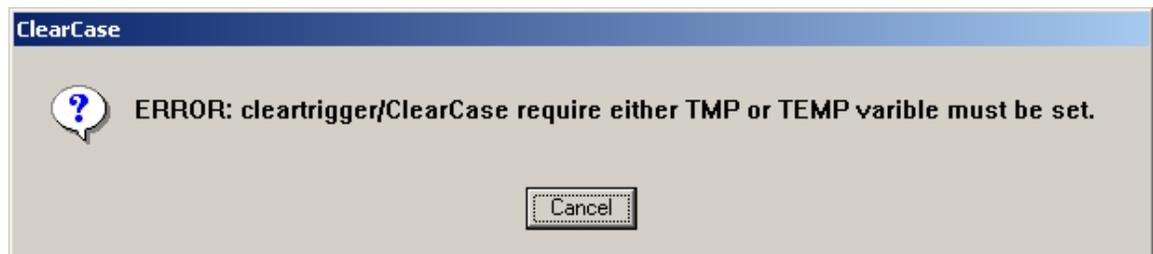
Windows Only:

The following changes are not required to run ClearTrigger unless the policy maker uses group names in any of the access lists in the **clearbits_file** (i.e. **Region Inhibited List**, **Region Special Access List** etc.). If you don't use this functionality, skip this section.

• The **CLEARCASE_PRIMARY_GROUP** variable must be set (a requirement of ClearCase/VersionVault checked for by ClearTrigger). Because ClearTrigger may be used to create enterprise group policy, this variable is checked against the *creds* information. If this function is not set and ClearTrigger reads a command_key definition requiring group checking, he user will get the error message below:

• Place a copy of the **creds.exe** distributed by IBM (for a ClearCase Installation) or HCL (for a VersionVault Installation) in the cleartrigger windows policy depot.